

CLAIMS

We claim:

1. A broadcasting method comprising the acts of:

storing a plurality of programs;

5 defining in a wireless communications channel a plurality of time segments, each time segment comprising a high priority time part and a low priority time part;

10 broadcasting a first set of stored programs in each high priority time part; and
broadcasting a second set of stored programs in a plurality of low priority time parts.

15 2. The method of claim 1 further comprising the act of increasing a first bandwidth of the channel during each high priority time part to a value larger than a second bandwidth of the channel during each low priority time part.

20 3. The method of claim 2, wherein increasing the first bandwidth of the channel comprises using at least a portion of a bandwidth of a second communications channel.

25 4. The method of claim 2, wherein increasing the first bandwidth of the channel comprises increasing the first bandwidth to a maximum allowable bandwidth in a government authorized frequency spectrum.

30 5. The method of claim 1 further comprising the act of increasing a bandwidth of a high priority time part during a first portion of a day.

6. The method of claim 1 further comprising the act of increasing a duty cycle of a particular high priority time

part by increasing a duration of the particular high priority time part.

7. The method of claim 1 further comprising the act of
5 decreasing a duty cycle of a particular high priority time part by increasing a duration of a time segment that includes the particular high priority time part.

8. The method of claim 1 wherein a first high priority time
10 part duty cycle is defined during a first portion of a day, and a second high priority time part duty cycle, larger than the first high priority time part duty cycle, is defined during a second portion of the day.

9. The method of claim 1 further comprising the act of
increasing a high priority time part duty cycle during a first portion of a day during which a user demand for reception and output of at least one of the first set of programs is larger than the user demand for reception and
20 output of at least one of at least one of the first set of programs during a second portion of a day.

10. The method of claim 1 wherein the channel is defined as a channel in an ensemble multiplex signal comprising a
25 plurality of channels.

11. The method of claim 1 wherein the channel is defined as a channel in a satellite broadcasting system.

- 30 12. The method of claim 1 wherein the channel is defined in a satellite digital video broadcast wireless signal.

13. The method of claim 1 wherein the channel is defined in a terrestrial digital video broadcast wireless signal.

14. The method of claim 1 wherein the channel is defined in an in-band on-channel signal or in a hybrid in-band on-channel signal.

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15. The method of claim 1 wherein the channel is defined in a signal modulated using coded orthogonal frequency division multiplexing.

10 16. The method of claim 1 wherein the channel is defined in a signal modulated using 8-level digital vestigial sideband modulation.

15 17. The method of claim 1 wherein the first set of programs comprises at least one motor vehicle traffic report program.

18. The method of claim 1 wherein the first set of programs comprises at least one weather report program.

20 19. The method of claim 1 wherein the second set of programs comprises at least one audio program.

20. The method of claim 1 wherein the second set of programs comprises at least one video program.

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21. The method of claim 1 wherein the first set of programs consists of a single program.

30 22. The method of claim 1 wherein the second set of programs consists of a single program.

23. A broadcasting system comprising:
a database configured to store a plurality of programs;
and

a transmission facility coupled to receive the stored programs and configured to broadcast a wireless signal including the programs;

wherein the signal is associated with a communications channel, the communications channel being partitioned into a plurality of time segments, each time segment comprising a high priority time part and a low priority time part, a first set of programs received from the database being carried in each high priority time part, and a second set of programs received from the database being carried in a plurality of low priority time parts.

24. The system of claim 23, wherein a first bandwidth of the channel during each high priority time part is larger than a second bandwidth of the channel during each low priority time part.

25. The system of claim 24, wherein the first bandwidth of the channel comprises at least a portion of a bandwidth of a second communications channel associated with the signal.

26. The system of claim 24, wherein the first bandwidth of the channel comprises a maximum allowable bandwidth in a government authorized frequency spectrum.

27. The system of claim 23 wherein a duty cycle of a high priority time part is increased by increasing a duration of a particular high priority time part.

28. The system of claim 23 wherein a duty cycle of a high priority time part is decreased by increasing a duration of a time segment that includes a particular high priority time part.

29. The system of claim 23 wherein the signal comprises an ensemble multiplex signal comprising a plurality of channels, and wherein the communications channel is one of the ensemble multiplex signal channels.

30. The system of claim 23 wherein the channel is defined as a channel in a satellite broadcasting system.

31. The system of claim 23 wherein the signal is a satellite digital video broadcast signal.

32. The system of claim 23 wherein the signal is a terrestrial digital video broadcast signal.

33. The system of claim 23 wherein the signal is an in-band on-channel signal or a hybrid in-band on-channel signal.

34. The system of claim 23 wherein a modulation of the signal is coded orthogonal frequency division multiplexing.

35. The system of claim 23 wherein a modulation of the signal is 8-level digital vestigial sideband modulation.

36. The system of claim 23 wherein the first set of programs comprises at least one motor vehicle traffic report program.

37. The system of claim 23 wherein the first set of programs comprises at least one weather report program.

38. The system of claim 23 wherein the second set of programs comprises at least one audio program.

39. The system of claim 23 wherein the second set of programs comprises at least one video program.

40. The system of claim 23 wherein the first set of
5 programs consists of a single program.

41. The system of claim 23 wherein the second set of programs consists of a single program.

10 42. A wireless broadcast signal, wherein the signal is associated with a communications channel, the communications channel being partitioned into a plurality of time segments, each time segment comprising a high priority time part and a low priority time part, a first set of programs received
15 from the database being carried in each high priority time part, and a second set of programs received from the database being carried in a plurality of low priority time parts.

20 43. The signal of claim 42, wherein a first bandwidth of the channel during each high priority time part is larger than a second bandwidth of the channel during each low priority time part.

25 44. The signal of claim 43, wherein the first bandwidth of the channel comprises at least a portion of a bandwidth of a second communications channel associated with the signal.

30 45. The signal of claim 43, wherein the first bandwidth of the channel comprises a maximum allowable bandwidth in a government authorized frequency spectrum.

46. The signal of claim 42 wherein a duty cycle of a high priority time part is increased by increasing a duration of a particular high priority time part.

5 47. The signal of claim 42 wherein a duty cycle of a high priority time part is decreased by increasing a duration of a time segment that includes a particular high priority time part.

10 48. The signal of claim 42 wherein the signal comprises an ensemble multiplex signal comprising a plurality of channels, and wherein the communications channel is one of the ensemble multiplex signal channels.

15 49. The signal of claim 42 wherein the channel is defined as a channel in a satellite broadcasting system.

50. The signal of claim 42 wherein the signal is a satellite digital video broadcast signal.

20 51. The signal of claim 42 wherein the signal is a terrestrial digital video broadcast signal.

52. The signal of claim 42 wherein the signal is an in-band
25 on-channel signal or a hybrid in-band on-channel signal.

53. The signal of claim 42 wherein a modulation of the signal is coded orthogonal frequency division multiplexing.

30 54. The signal of claim 42 wherein a modulation of the signal is 8-level digital vestigial sideband modulation.

55. The signal of claim 42 wherein the first set of programs comprises at least one motor vehicle traffic report program.

5 56. The signal of claim 42 wherein the first set of programs comprises at least one weather report program.

57. The signal of claim 42 wherein the second set of programs comprises at least one audio program.

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58. The signal of claim 42 wherein the second set of programs comprises at least one video program.

15 59. The signal of claim 42 wherein the first set of programs consists of a single program.

60. The signal of claim 42 wherein the second set of programs consists of a single program.